

REMARKS

The primarily relied upon reference in the Office Action of 7/31/03 is Furukawa (JP 5-87760). The Office Action fails to recognize in Applicant's claims the aspects of a **two-hand held game controller** having a left hand area and a right hand area in combination with either a **pressure-sensitive discrete, independent or individual button**, or a pressure-sensitive sensor located **in the right hand area**.

Please take note of those critically important features (not that the other features aren't important). Claims 20 and 30 have each been herein amended to more clearly recite one or both of those critical features. If the Examiner believes any other claim language could be clarified to better reflect these or other inventive aspects of Applicant's Invention, please inform Applicant. Thank you.

In Applicant's opinion, the Previous Examiner correctly understood Furukawa to be describing "trigger" keys 19 and 20 in a section of related or prior art, and that the trigger keys 19 and 20 are conventional, i.e. On/Off switches were conventional at that time in that location.

Nowhere in Furukawa is there a teaching or suggestion of a **two-hand held game controller** with an individual or **independent button** ("discrete button" as stated by the Previous Examiner) which when depressed **operates a pressure-sensitive analog output sensor**.

Nowhere in Furukawa is there a teaching or suggestion of a two-hand held game controller with a pressure sensor located in the right-hand area of the controller.

Additional distinctions of Applicant's invention over Furukawa can be supplied by Applicant upon the Examiner's request.

Applicant respectfully requests that the Examiner note that Applicant's claim 1 includes a two hand held game controller having an individual button that is pressure-sensitive (not taught or suggested by Furukawa) and a pressure-sensor located in the right-hand area of the controller (also not taught or suggested by Furukawa). Therefore, claim 1 is **doubly allowable** for at least these reasons and also for reasons involving other elements in the novel, unobvious and useful inventive combination of claim 1.

Applicant agrees with the Previous Examiner. The current invention has criticality for the novel combinations of elements, and such was appreciated by the Previous Examiner. Please read the Summary of the Invention in Applicant's Specification for the most readily understood statements pertaining to critical timing related gaming aspects, human brain half differentiation for right and left hand control, and the structuring of Applicant's invention. Other showings of criticality exist, explicitly and implicitly, in the specification. Applicant would be

more than happy to further discuss the criticality issues upon request by the Examiner.

For the herein reasons, all rejection grounds in the Office Action mailed 7/31/03 should be withdrawn.

Further reasons are provided below as to why the claims should again be held allowable.

For clarity of the claims Applicant wishes the Examiner to be aware that the language "two hand held" or "to be held by two hands" and the like means a controller or housing which is small and economical and which can be comfortably held aloft in both hands simultaneously while being manipulated in game play, as taught in the instant specification.

Regarding 35 USC 103 Rejections

Applicant notes that the Examiner combined Furukawa with Terajima in a 35 USC 103 rejection. In recent years the Court of Appeals for the Federal Circuit has reversed the Patent Office Board of Appeals and the Patent Office Board of Appeals has now come to rely on the Courts guidance concerning 35 USC 103 rejections. The general reasoning the Examiner stated is insufficient to sustain an obviousness rejection of Furukawa with Terajima, see the following two documents taken from the Patent Office web site and enclosed for the Examiner's convenience: Appeal No. 2000-1204 heard February 21, 2002 before the Board of Patent Appeals, page 6 "**the...[Office] must point to some concrete evidence in the record in support of these findings.**" In Re Zurko (Fed. Cir. 2001); and Appeal No. 1999-2739 before the Board of Patent Appeals, page 5-6 "**the showing or evidence of a suggestion, teaching, or motivation to combine must be clear and particular**" In Re Dembiczak (Fed. Cir. 1999).

Applicant believes that Examiner Enatsky is a sincere examiner who would like to do a good job and therefore encourages him to study at least these two reversals of other patent Examiner's errors regarding 35 USC 103.

DISCUSSION OF REASONS FOR ALLOWANCE FOR EACH CLAIM

Independent Claim 1 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: an image generation machine capable of driving a television, the image generation machine at least in-part controlled by a controller controlling electronic imagery, the controller comprising: **a housing structured to be held by two hands simultaneously**, the housing having a left-hand area and right-hand area, and a four-way rocker located in the left-hand area of the housing, and a plurality of depressible buttons at least in-part exposed on the housing with the depressible buttons acting on electricity manipulating devices contained within the housing and controlled by depression of the depressible buttons for manipulating electrical outputs at least useful for controlling electronic imagery; at least one of the electricity manipulating devices is a **pressure-sensitive variable-conductance sensor** defining an analog electrical output proportional to varying physical pressure applied to **a depressible button** of the plurality of depressible buttons, and the button and the sensor are **positioned in the right-hand area** of the housing; and structure such as a cable or wireless connection outputting a signal from the controller to the image generation machine, the signal at least representational of the analog electrical output; and also the sensor has circuit trace material supported by a sheet (an electrically conductive material on a sheet such as a circuit board or other), the sheet located within the housing, a resilient dome cap positioned over the sheet and the circuit trace material, the resilient dome cap depressible by depressive pressure applied to the button.

Since Furukawa fails to teach or suggest any type of analog pressure sensor located in the right hand area of a two hand held game controller, as in

the above claim 1, as correctly determined by the Previous Examiner, then it is respectfully requested that the 35 U.S.C. 102(b) rejection of the 7/31/03 OA be withdrawn from any claim of Applicant's against which Furukawa was held for those features because those features are not in Furukawa.

Furthermore, Furukawa fails to teach or suggest a two hand held game controller with any type of analog pressure sensor associated with a "discrete button" or individual button which is "a depressible button" as in the above claim 1, as correctly determined in the Reasons for Allowance by the Previous Examiner, and thus again it is respectfully requested that the 35 U.S.C. 102(b) rejection of the 7/31/03 OA be withdrawn from any claim of Applicant's against which Furukawa was held for those features because those features are not in Furukawa.

Dependent Claim 2 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 1 and further defined with the recitation of "wherein the resilient dome cap has an underside substantially convexed surface".

Regarding claim 2-5 all of which include the elements of claim 1: In the Office Action of 7/31/2003 on page 4 the Examiner combined Terajima JP 7-302159 with Furukawa for the "convex" button underside of Terajima, as well as other elements of Terajima. If however neither the right hand location of the pressure sensor or the discrete nature of the pressure sensitive button of Applicant's invention of claim 1 are in Furukawa, and they are not, then it is respectfully requested that the 35 U.S.C. 103(a) rejection of the 7/31/03 OA be withdrawn from any claim against which Furukawa was held for those features because those features are not in Furukawa. The combination of Furukawa and Terajima, mainly because of the relied upon elements in Furukawa which are

actually not in Furukawa, can not render any of Applicant's claims obvious. Withdrawal of the 35 U.S.C. 103 rejection in all cases is requested.

Dependent Claim 3 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 2 wherein the substantially convexed surface deformable to at least partially flatten-out with pressure applied to the button, the deforming of the substantially convexed surface causing electrical contact of additional surface area of the circuit trace material.

Dependent Claim 4 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 3 and further wherein the circuit trace material is in an interdigitated form in an area under the resilient dome cap, and the sheet is a circuit board.

Dependent Claim 5 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 4 and further including conductive material contacting the interdigitated circuit trace material when the button is depressed.

Independent Claim 6 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: an image generation machine capable of driving an image display, the image generation machine at least in-part controlled by **a game controller** structured to be held by a human user **in two hands simultaneously**, the controller comprising: housing structure being held by the human user; and a plurality of depressible **individual buttons** exposed on the housing and depressible by digits of the user's hands to operate electricity manipulating devices contained within the housing and operated for manipulating electrical outputs of the electricity manipulating devices by depression of the depressible individual buttons; at least one of the electricity

manipulating devices including **structure providing an analog electrical output proportional to varying physical pressure applied by at least one depressible individual button of the plurality of depressible individual buttons**; and structure outputting a signal from the controller to the image generation machine, the signal at least representational of the analog electrical output.

At least for the reasons given relative to claim 1 above related to the discrete analog pressure sensor of Applicant's two hand held game controller which is not in Furukawa (Terijima does not appear to describe a two hand held with left and right hand areas game controller) please withdraw the 35 U.S.C. 102(b) rejection held against claim 6 – 15.

Dependent Claim 7 (8-15 too) is allowable over the prior art of record at least because of the novel and inventive combination of elements including those elements in allowable parent claim 6 and including further defining such as: Apparatus for game playing in accordance with claim 6 wherein the housing is structured as a single housing to be held by two hands simultaneously.

Dependent Claim 8 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 7 and further wherein the structure providing an analog electrical output includes a resilient dome cap positioned over a first circuit trace and a second circuit trace, the circuit traces are in close proximity to one another.

Dependent Claim 9, further defining claim 8 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 8 further comprising conductive material positioned to contact across the circuit traces when the resilient dome cap is depressed.

Dependent Claim 10, further defining claim 9 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 9 wherein the resilient dome cap includes a substantially convexed portion positioned to press against the conductive material when the resilient dome cap is depressed.

Dependent Claim 11, further defining claim 10 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 10 and further wherein the convexed portion of the resilient dome cap is deformable when pressed (indirectly or directly) against the conductive material.

Dependent Claim 12, further defining claim 11 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 11 and further comprising a left hand area and a right hand area of the housing, and the one depressible individual button is position in the right hand area.

Dependent Claim 13, further defining claim 12 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 12 and further comprising a four-way rocker at least in part exposed on the housing in the left hand area.

Dependent Claim 14 further defining claim 13 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 13 and further comprising four analog sensors associated with the four-way rocker.

Dependent Claim 15 , further defining claim 14 is allowable over the prior art of record at least because of the novel and inventive combination of elements

including: Apparatus for game playing in accordance with claim 14 and further comprising each sensor of the four analog sensors including a resilient dome cap.

Independent Claim 16 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: a game console capable of controlling imagery shown by a television, the game console at least in-part controlled by a controller, the controller having a housing to be grasped and held simultaneously by two hands of a human user; the housing including a right-hand area and a left-hand area, the right-hand area being an area for grasping by the user's right hand, the left-hand area being an area for grasping by the user's left hand; a plurality of depressible individual buttons located on the housing in the right-hand area and positioned to be within reach of the user's right-hand thumb with the user's hand grasping the housing in the right-hand area; at least one button of the depressible individual buttons including structure defining an analog electrical output proportional to varying applied physical pressure; (At this point the claim 16 is allowable over Furukawa for the reasons given above relative to claim 1 pertaining to right hand location and discrete nature of the analog pressure sensor) with claim 16 further including structure outputting from the controller to the game console a signal at least representational of the analog electrical output. (although it could be wireless too, one example of the structure outputting from the controller to the game console in the specification is a cable)

Dependent Claim 17, further defining claim 16 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 16 wherein the structure defining an analog electrical output comprises: a resilient dome cap, the resilient dome cap positioned over conductive material, the conductive material positioned over a circuit trace material.

Dependent Claim 18, further defining claim 17 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 17 and further wherein the left-hand area includes a four-way rocker, the four-way rocker is associated with four electricity manipulating devices in part located on a circuit board, the circuit board continuing from the left-hand area into the right-hand area, the circuit board supporting the circuit trace material associated with the at least one button, the circuit trace material formed as interdigitated circuit traces, the resilient dome cap having a substantially convex shaped underside, wherein a first level of pressure applied to the button causes the substantially convex shaped underside to contact the conductive material to a first surface area of the interdigitated circuit traces, and a second level of pressure applied to the button causes the convex shaped underside to contact the conductive material to a second surface area of the interdigitated circuit traces, the second level of pressure being greater than the first level of pressure and the second surface area being greater than the first surface area.

Dependent Claim 19 further defining claim 18, is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for game playing in accordance with claim 18 and further wherein the at least one button located in the right hand area is at least four buttons located in the right hand area.

Independent Claim 20 (as amended) is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game playing apparatus including an image display showing imagery; and an image generation machine controlling the imagery shown by said image display; and a game controller at least in part controlling said image generation machine; and said game controller comprising a housing to be grasped and held simultaneously by two hands of a human user during use, said housing including a right-hand area and a left-hand area; and a plurality of depressible electricity

manipulating devices each at least in-part exposed on said right-hand area of said housing; and at least one device, of said electricity manipulating devices, creating an analog electrical signal representing varying applied physical pressure; and, at least one of said electricity manipulating devices creating an On/Off signal; and electronics at least in part converting the signals into control of the imagery shown by said display. The relied upon prior art fails to suggest claim 20 in at least the aspect of a pressure sensor in the right hand area of a two hand held housing, and therefore claim 20 is allowable over the relied upon art of record. See additional herein reasons for allowance and properly withdraw the grounds for rejection please.

Dependent Claim 21 further defining claim 20, is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game playing apparatus according to claim 20 wherein said at least one device, and said at least one of said electricity manipulating devices, are separate devices of said electricity manipulating devices, and said at least one of said electricity manipulating devices creating only an On/Off signal.

Dependent Claim 22, further defining claim 20, is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game playing apparatus according to claim 20 and further wherein the at least one device, and the at least one of the electricity manipulating devices, is a single device of the electricity manipulating devices. This "single device" is in one form of the invention a single button.

Independent Claim 23 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: a machine for controlling imagery, the machine at least in-part controlled by a hand held controller, the controller including a housing shaped to be grasped and held simultaneously by two hands of a human user during use, the housing including a right-hand area and a left-hand area; and a plurality of depressible electricity

manipulating devices each at least in-part exposed on the housing, and at least one of the electricity manipulating devices is a sensor, the sensor is located in the right-hand area of the housing, and the sensor comprises a compressible resilient dome cap positioned over electrically conductive material, variable depression of the dome cap defining an analog electrical output representing the variable depression, and active electronics interpreting the analog electrical output and causing variable control of the imagery.

Dependent Claim 24 further defining claim 23 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for image control according to claim 23 and further wherein the conductive material is pressure-sensitive variable-conductance material.

Dependent Claim 25 further defining claim 23 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for image control according to claim 23 and further wherein the compressible resilient dome cap has a substantially convexly rounded inner portion, the substantially convexly rounded inner portion comprising electrically conductive material.

Dependent Claim 26 further defining claim 23 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for image control according to claim 23 wherein the compressible resilient dome cap has a substantially convexly rounded inner portion positioned over electrically conductive material.

Dependent Claim 27 further defining claim 26 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for image control according to claim 26 and further wherein the active electronics includes an integrated circuit chip.

Dependent Claim 28 further narrowing claim 27 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for image control according to claim 27 wherein the active electronics includes a micro-controller.

Dependent Claim 29 further defining claim 27 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Apparatus for image control according to claim 27 wherein the active electronics includes an ASIC.

Independent Claim 30 (as amended) is allowable over the prior art of record at least because of the novel and inventive combination of elements including: a depressible individual button positioned to apply pressure (directly or indirectly) to electrically conductive material, said sensor creating analog output proportional to varying physical pressure applied by a human user's digit to said individual button; said sensor electrically connected to active electronics, said active electronics interpreting the analog output of said sensor; and said sensor positioned as part of a two-hand held controller, and said controller for controlling imagery at least in part in relation to the analog output. The relied upon prior art does not teach or suggest such an arrangement and therefore the rejection should be withdrawn and the claim again found allowable.

Dependent Claim 31 further defining claim 30 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: An electricity manipulating sensor for a control device according to claim 30 and further wherein within the sensor further comprises a depressible resilient dome cap with a substantially convexed shaped surface area to apply pressure (directly or indirectly) to the electrically conductive material.

Dependent Claim 32 further defining claim 31 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: An electricity manipulating sensor for a control device according to claim 31 wherein the substantially convexed shaped surface area has an apex, the surface area is a rounded bulging area which is flexible, the rounded bulging area increasingly flattens with increasing pressure applied to the resilient dome cap.

Dependent Claim 33 further defining claim 32 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: An electricity manipulating sensor for a control device according to claim 32 and further wherein the flattening of the rounded bulging area causes additional surface area contact of the electrically conductive material with circuit trace material.

Dependent Claim 34 further defining claim 33 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: An electricity manipulating sensor for a control device according to claim 33 and further wherein the circuit trace material comprises a first circuit trace and a second circuit trace.

Dependent Claim 35 further defining claim 34 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: An electricity manipulating sensor for a control device according to claim 34 and further wherein the first circuit trace and the second circuit trace are interdigitated.

Dependent Claim 36 further defining claim 33 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: An electricity manipulating sensor for a control device according to claim 33 wherein the control device is a game control device including a housing

to be grasped and held simultaneously by two hands of the human user during use, the housing including a right-hand area and a left-hand area, the right-hand area being an area for at least grasping by the user's right hand, the left-hand area being an area for at least grasping by the user's left hand, the depressible individual button area is located in the right-hand area.

Dependent Claim 37 further defining claim 36 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: An electricity manipulating sensor for a control device according to claim 36 and further wherein the housing is a single housing, and the depressible individual button is located to be depressed by a user's right-hand thumb.

Dependent Claim 38 further defining claim 36 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: An electricity manipulating sensor for a control device according to claim 36 and further wherein the housing is a single housing, and the depressible individual button is located to be depressed by a user's right-hand index finger.

Independent Claim 39 is allowable over the prior art of record at least because of the novel and inventive combination of elements including

an image display displaying game imagery, the image display connected to an image generation machine, the image generation machine driving the game imagery, the image generation machine at least in-part controlled by a controller, the controller including a single housing to be grasped and held simultaneously by two hands of a human user, the housing including a right-hand area and a left-hand area; and a plurality of depressible electricity manipulating devices each at least in-part exposed on the housing; and at least one of the electricity manipulating devices including structure creating an On/Off output, and at least one of the electricity manipulating devices including a pressure-sensitive variable-conductance structure creating a varying output related to varying

pressure applied by a user's right-hand digit; and active electronics at least interpreting the outputs of the at least one electricity manipulating device.

Dependent Claim 40 further defining claim 39 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game apparatus according to claim 39 and further wherein the varying pressure is applied by the user's right-hand thumb.

Dependent Claim 41 further defining claim 39 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game apparatus according to claim 39 and further wherein the varying pressure is applied by the user's right-hand index finger.

Dependent Claim 42 further defining claim 39 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game apparatus according to claim 39 and further wherein a four-way rocker is located in the left-hand area.

Dependent Claim 43 further defining claim 42 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game apparatus according to claim 42 and further wherein the pressure-sensitive variable-conductance structure includes structure establishing additional current paths, whereby electrical resistance is lowered according to pressure applied by the user's right-hand digit.

Dependent Claim 44 further defining claim 43 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game apparatus according to claim 43 and further wherein the pressure-sensitive variable-conductance structure includes a deformable surface on an underside of a resilient dome cap.

Dependent Claim 45 further defining claim 44 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game apparatus according to claim 44 and further wherein the varying pressure is applied by the user's right-hand thumb.

Dependent Claim 46 further defining claim 44 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game apparatus according to claim 44 and further wherein the varying pressure is applied by the user's right-hand index finger.

Dependent Claim 47 further defining claim 45 is allowable over the prior art of record at least because of the novel and inventive combination of elements including: Game apparatus according to claim 45 and further wherein the deformable surface includes an apex.

Conclusion

The prior art of record could not alone or in combination anticipate or make obvious the invention as claimed, for at least the reasons provided herein.

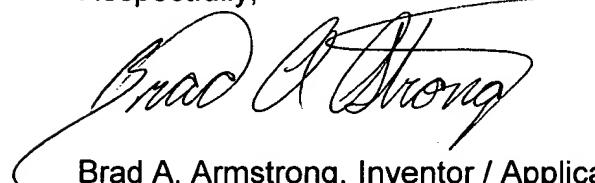
Withdrawal of the rejection grounds stated in the 7/31/03 Office Action is respectfully requested, as is a statement of Allowability of all of the pending claims 1-47. Thank you.

The Examiner is encouraged to remember that this application has claims which have already been examined and allowed over the relied upon references.

Some bolding is used herein, however, the lack of bolding is not intended to imply a lack of importance.

The Examiner is invited to contact Applicant if Applicant may be of any assistance with this very important matter. Thank you.

Respectfully,

A handwritten signature in black ink, appearing to read "Brad A. Armstrong".

Brad A. Armstrong, Inventor / Applicant

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Date: January 30, 2004